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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,031	06/24/2004	Izidor Brajnovic	21547-00297-US1	2272
30678	7590	01/25/2006	EXAMINER	
CONNOLLY BOVE LODGE & HUTZ LLP SUITE 800 1990 M STREET NW WASHINGTON, DC 20036-3425			DONAHOE, CASEY D	
			ART UNIT	PAPER NUMBER
			3732	

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/500,031	Applicant(s) BRAJNOVIC, IZIDOR	
	Examiner Casey Donahoe	Art Unit 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7, 9, 10, 12-16 and 19 is/are rejected.
- 7) ☒ Claim(s) 6, 8, 11, 17, 18 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 June 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/24/2004</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)),

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and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or

REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a).

"Microfiche Appendices" were accepted by the Office until March 1, 2001.)

(f) BACKGROUND OF THE INVENTION.

(1) Field of the Invention.

(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

(g) BRIEF SUMMARY OF THE INVENTION.

(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

(i) DETAILED DESCRIPTION OF THE INVENTION.

(j) CLAIM OR CLAIMS (commencing on a separate sheet).

(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

The titles (f)-(i) should be incorporated into the description.

Claim Objections

Claims 5, 9 and 11 are objected to because of the following informalities: Claim 5 refers to the outer surface in line 2 with "12b' " but should use "10b' ". Claim 9 uses inappropriate label of degrees Celsius. Claim 11 uses no unit for the order of movement. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claims 2, 13, 14, 16, and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 recites the limitation "the portions" (plural) in line 6. Claim 13 recites the limitation "the spacer sleeve" in line 2. Claim 14 recites the limitation "the bridge sleeves" in line 2. Claim 16 recites the limitation "the spacer sleeve" in line 1. Claim 17 recites the limitation "the irregularities" in line 1. There is insufficient antecedent basis for these limitations in the claims.

Claim 6 uses parenthesis to disclose the types of hard titanium (MGA 007) and soft titanium (MFA-002). Parenthesis should be reserved for reference numerals to the drawings. It is unclear as weather these types of titanium provide explicit limitations or only examples of acceptable titanium.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 5, 10, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Mazel (US 5,704,936).

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Regarding claim 1, Mazel discloses an arrangement with an implant (25) and an attachment part (3), in which the attachment part includes a recessed wall and the implant is designed with a portion (12), wherein the attachment part and its recessed wall (27) are arranged with displaceability in the main longitudinal direction of the implant relative to the outer surface of the portion, and in that the portion is arranged to be expandable so that in a given position of longitudinal displacement it is possible to achieve interaction between the outer surface of the portion and the recessed wall and thus anchoring of the attachment part to the portion (column 4, line 61 – column 5, line 12).

Regarding claim 2, the portion is substantially cylinder shaped and comprises parts (14) which extend adjacent to one another and which, during the expansion, can be pressed outward in the radial direction, wherein the mutually adjacent parts are arranged with internal surfaces which combine to form an internal inner surface, and wherein the portions are arranged to be expandable by means of a fastening screw (17), which is provided with an outer surface which can cooperate with the inner surface, the mutually adjacent parts being expanded radially as a function of the position of the screw in the implant.

Regarding claim 4, the connectors form a bridge in Fig. 20 (column 3, lines 16-18), in which the recessed wall is formed.

Regarding claim 5, both the recessed wall and the outer surface of the portion are substantially cylindrical.

Regarding claim 10, the outer surface of the portion is designed with irregularities, by means of which the outer surfaces cooperate (column 5, lines 4-6).

Regarding claim 12, Fig. 20 discloses a bridge with two implants, in which each recess is displaceable in the longitudinal direction. Because the connectors form a solid element between the two implants, the longitudinal displacement of one recess must inherently be determined by the relative longitudinal displacement of the other recess with respect to the implants.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 4, 7, 12, 13-15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jorneus et al. (US 6,902,401) in view of Mazel and Perisse (US 5,417,569).

Regarding claims 3, 4, and 15, Jorneus et al. disclose a dental bridge (1) secured to several implants with spacers (2b) arranged at the upper parts of the implants, by means of screws (7, 8, 9) through recessed walls directly in the bridge material. Jorneus et al. fail to disclose an expandable portion on the implant for locking to the attachment bridge. Mazel et al. discloses the implant arrangement described earlier, which utilizes expansion screws to attach orthopaedic structures to the implants.

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Various securing means, which rely upon expandable portions are well known in the art. Perisse, which discloses a similar means for securing a prosthetic tooth to an implant, teaches that expandable portions are advantageous over conventional screw means of attachment because they allow accurate placement in the longitudinal direction of the implant that does not depend upon the tightening stop limit of the screw (column 1, lines 39-53). Expansion mechanisms also allow easy adjustability of the retention pressure without changing the longitudinal displacement. In light of Perisse's teaching, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the bridge structure disclosed by Jorneus et al. with the attachment means disclosed by Mazel, in which the bridge is secured to the implants, by means of expandable portions and expansions screws thereon. This modification would allow the bridge to be accurately positioned in the longitudinal direction without regard to depth of the implant and would allow for variability in the horizontal plane defined by the multiple implants, which may not line up perfectly due to variations in the bone structure of the alveolar ridge.

Regarding claim 7, the parts extending adjacent to one another disclosed by Mazel project into the recess with the recessed wall by substantially their entire length, and thus at least $2/3$ of their lengths (Fig. 9).

Regarding claim 12, because the bridge disclosed by Jorneus et al. is a solid structure then the longitudinal displacement of the recesses formed in the bridge would inherently be determined by the relative longitudinal displacement of the recess, which is set first, with respect to the implants.

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Regarding claim 13, the portion of parts arranged adjacent to one another to be expandable in the radial direction, by means of a fastening screw, as disclosed by Mazel is intended to be located at the upper end of the spacer disclosed by Jorneus et al. The expansion is a result of internal surfaces set at an inclination and the degree of expansion is dependent on the position of insertion of the fastening screw (column 4, line 61 – column 5, line 12).

Regarding claim 14, Jorneus et al. discloses internal spaces of the spacer and bridge sleeves, which could be filled with thixotropic bactericidal agent.

Regarding claim 15 and 19, Jorneus et al. disclose a dental bridge attachment.

Regarding claim 16, the spacer sleeve extends substantially parallel to the recessed wall.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jorneus et al. in view of Mazel and Perisse as applied to claims 3, 4, 7, 12, 13, 15, and 16 above, and further in view of Lee (US 2002/0064758).

Mazel describes an implant and attachment, attached by means of an expansion screw as described above, but fails to disclose the half cone angle or material of construction of its expansion screw. It is well known in the art to form implant screws from gold, because of their biocompatibility as described by Lee (paragraph 46). Furthermore, the expansion screw of Mazel is designed with a head designed as a truncated cone, although the half cone angle is not specified. Because Applicant has not disclosed any unexpected result or advantage from a half cone angle of 40 degrees,

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and Mazel has disclosed the same general conditions as Applicant, it falls within an obvious choice of values. It would have been obvious to one of ordinary skill in the art at the time of the invention to form the expansion screw disclosed by Mazel from gold for anti-rejection purposes and to form it at a half cone angle of 40 degrees, since discovering an optimum value involves only routine skill in the art.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 2, 4, 5, 15, and 16 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3, and 6 of copending Application No. 10/451,530.

Although the conflicting claims are not identical, they are not patentably distinct from each other because they claim the same general invention. Claim 1 discloses an implant and an attachment part (sleeve 4) arranged with displaceability in the main longitudinal direction, where the implant includes a portion (expansion spacer) arranged to be expandable to achieve interaction between the outer surface of the portion and the sleeve, which inherently includes a recessed wall. Claim 1 further discloses a fastening screw. Claim 6 discloses that the fastening screw uses corresponding shapes with the expansion spacer, which would expand the spacer radially as a function of the position of insertion of the screw. The expansion spacer inherently includes parts so that they may expand away from each other. Claim 3 discloses a number of sleeves incorporated in a template shaped to the jaw bone (i.e. a bridge). Regarding Applicant's claims 2 and 5, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the recessed wall and accordingly the outer surface of the portion cylindrical, since cylindrical implants are very well known in the art and provide rotational symmetry so the implant can be positioned in any orientation about its axis.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Allowable Subject Matter

Claims 8 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Conclusion


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kownacki et al. (US 5,302,125), Sichler et al. (US 5,516,288), Detsch (US 5,015,186), Bluemli et al. (US 6,190,169), Cagna et al. (US 5,885,078), and Stone et al. (US 6,942,699) are made of record.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Casey Donahoe whose telephone number is (571) 272-2812. The examiner can normally be reached on Monday - Thursday (7:30 - 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (571) 272 -4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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1/23/06